IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

CROSS THE ROAD ELECTRONICS,
LLC,

      Plaintiff,

v.

DIGILENT, INC,

      Defendant.

Case No. 6:19-cv-270

JURY TRIAL REQUESTED

FIRST AMENDED COMPLAINT

This First Amended Complaint is being filed pursuant to Plaintiff's granted Motion for Extension of Time to File Amended Complaint and to Serve Pursuant to Rule 4. *See* Dkt. 6 and July 17, 2019 Text Order Granting Dkt. 6. Additionally, Defendant was not served with the original Complaint and no opposing party has entered appearance, thus the limitations of Rule 15 do not apply. The factual basis for the amendment is set forth in the granted Motion to Extend Time to File Amended Complaint and to Serve, Dkt. 6.

Plaintiff Cross The Road Electronics, LLC ("CTRE") brings this copyright infringement action and related breach of contract claim against Digilent, Inc.

PARTIES

1.   Plaintiff CTRE hereby demands a jury trial pursuant to Fed. R. Civ. P. 38.

2.   CTRE is a limited liability company organized under the laws of Michigan having its principal place of business in Macomb, MI. Plaintiff CTRE develops and brings to market various robotic and control applications including both software and hardware products. As part

of its software and hardware products, including robotic controllers and related software, CTRE grants purchasers and end users a *limited license* to use the computer software code on strict conditions and limitations. These limited license terms are standard to the computer coding industry. The code at issue in this case had an accompanying *Phoenix Software License Agreement*, and CTRE is the owner of all respective copyright interests.

3.   Defendant Digilent, Inc. ("Defendant") is a limited liability company having its principal place of business in Austin, Texas. Defendant specifically identifies in its official Secretary of State filings in Washington State that its principal office is 11500 N. MOPAC Expressway, Austin, TX. Defendant is also a maker of robotic equipment and controllers and is a direct competitor of CTRE in some product lines.

4.   CTRE and Defendant are direct competitors. Their products and the computer code at the center of this case are created, marketed and specifically intended and targeted to young children and teenagers who are interested in and participate in educational and school STEM (Science – Technology – Engineering – Mathematics) programs, events and competitions. More specifically, the products and computer code of both CTRE and Defendant at the center of this case were created especially for children that participate in the STEM activities and robotic team competitions and events organized and sponsored by a certain non-profit organization known as *FIRST*® (For Inspiration and Recognition of Science and Technology) (https://www.firstinspires.org/).

5.   With children being the specially targeted consumers/users (market), the mission statement and values promoted by *FIRST*®, which are applicable to the parties' products at the center of this case, are directed to learning, inventorship, teamwork, sportsmanship, honesty and integrity. Unfair competition and improperly copying, imitating or taking the work of others is

diametrically opposed to the mission statement and values *FIRST*® promotes to children that participate in its programs as well as the parties' products used by kids participating in *FIRST*® robotic competitions.

6.   The case is brought pursuant to federal question arising out of the Copyright Act. Additionally, no party to this action shares common citizenship, and complete diversity exists in this matter having damages exceeding $75,000.

JURISDICTION AND VENUE

7.   Subject matter jurisdiction is proper in that the federal question claims are brought pursuant to 28 U.S.C. § 1331 and 28 U.S.C. § 1338, which provides original jurisdiction over any civil action arising under any Act of Congress relating to copyrights, mask works, designs, trademarks, and unfair competition. Subject matter jurisdiction is also proper in this Court pursuant to 28 U.S.C. § 1332.

8.   This Court has personal jurisdiction as Defendant operates a principal place of business in Austin, Texas; Defendant actively operates a substantial e-commerce website fully accessible to citizens of Texas; Defendant has actively sold and shipped a substantial volume of product to citizens and businesses in Texas; Defendant actively promotes its products in Austin, Texas at the Design Automation Conference (DAC) and has done so for several years; and Defendant is identified as "A National Instruments Company" having a principal place of business in Austin, Texas.

9.   Venue is proper in this district pursuant to 28 U.S.C. 1391(b) because a substantial part of the events giving rise to CTRE's claims occurred in this judicial district.

BACKGROUND

10.   CTRE has been the supplier of the *Talon SRX Motor Controller* used in *FIRST®* robotics competition events.

11.   *FIRST®* holds national robotics competitions. More than 45,000 robots were created during the 2018-2019 season, and *FIRST®* has a global reach of more than 570,000 young children and students, according to its website (https://www.firstinspires.org/about/at-a-glance).

12.   The mission of *FIRST®* is "to inspire young people to be science and technology leaders and innovators, by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership." (https://www.firstinspires.org/about/vision-and-mission).

13.   CTRE is an approved supplier of certain controllers for *FIRST®* robotics competition events. CTRE manufactured the *Talon SRX Motor Controller* for use in connection with *FIRST®* competitions.

14.   CTRE invented and designed the smart speed control technology and provides electronics, communications protocols, and integrated PID control.

15.   CTRE's Talon SRX was the first smart speed control unit to the market to be purchased, adopted and used by the majority of children and their teams participating in *FIRST®* robotics competition events, and the software authored for the controller was original to CTRE.
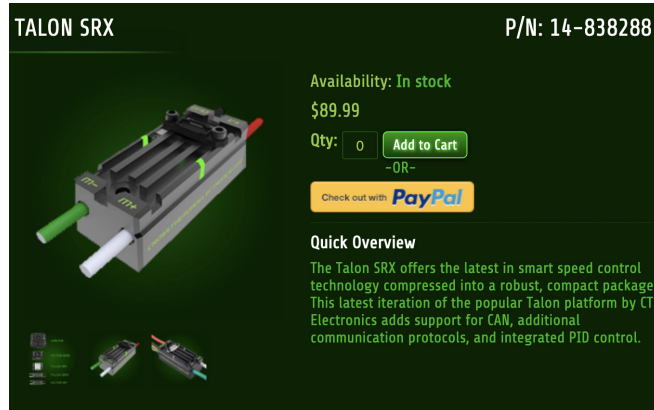
16.   CTRE produces not only the Talon SRX Motor Controller product, but also authored the software code bundle that facilitates use of the Talon SRX. CTRE named such software bundle "PHOENIX."

17.   CTRE filed for and received a United States Copyright Registration for the software titled "PHOENIX CTRE JANUARY 4, 2018 RELEASE" having Reg. No. TX 8-747-057. A true and correct copy of the Certificate of Registration is attached as **Exhibit 1**. Such Certificate is presumptive of valid copyright interest and ownership rights vesting with CTRE.

18.   CTRE made software available to the children and teams participating with *FIRST*® on *WPILib*, which is a computer software library or repository that allows end users to download CTRE's software for use in connection with the Talon SRX Motor Controller used in *FIRST*® robotics competitions (https://www.firstinspires.org/robotics/frc/blog/2019-wpilib). *See also* https://github.com/wpilibsuite/allwpilib.

19.   Additionally, the PHOENIX code was also openly available for download at the CTRE website PHOENIX API Library and CTRE's GitHub site created and maintained by CTRE (http://www.ctr-electronics.com/hro.html#product_tabs_technical_resources; https://github.com/CrossTheRoadElec/Phoenix-api).

20.   In connection with the PHOENIX code accessible through the PHOENIX API Library and CTRE's GitHub site, CTRE provided actual copyright notice to all users of the software that CTRE claimed copyright protection in its PHOENIX software code.

21.   Provided and made a part of the software available for all end users through PHOENIX API Library and CTRE's GitHub site was CTRE's "Phoenix Software License Agreement." It is set forth below, and CTRE applied a proper copyright notice in connection with distribution of its source code:

```
/**
 * Phoenix Software License Agreement
 *
 * Copyright (C) Cross The Road Electronics.  All rights
 * reserved.
 *
 * Cross The Road Electronics (CTRE) licenses to you the right to
 * use, publish, and distribute copies of CRF (Cross The Road) firmware files (*.crf) and
 * Phoenix Software API Libraries ONLY when in use with CTR Electronics hardware products
 * as well as the FRC roboRIO when in use in FRC Competition.
 *
```

22.   Defendant, Digilent sells a product known as the DMC 60c digital motor controller, which copies, imitates, mimics and is identical to and directly competitive with CTRE's Talon SRX.

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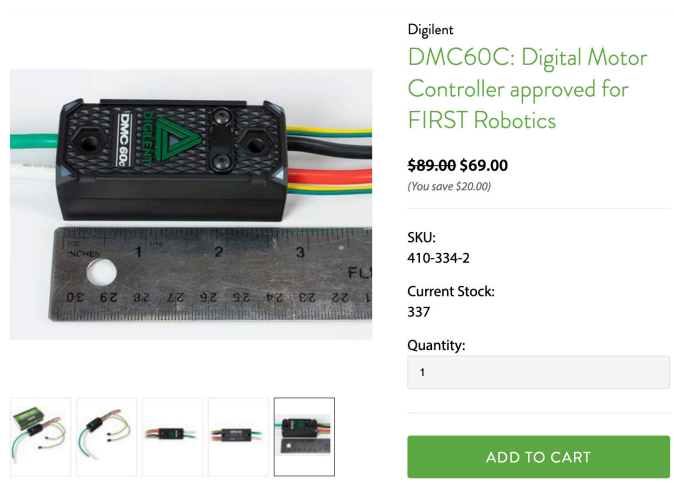
23.   Prior to creating its DMC 60c digital motor controller, which copies, imitates, and mimics CTRE's Talon SRX smart motor controller, Defendant never made or offered a smart motor controller for use in the *FIRST*® robotic competitions, and therefore the accused DMC 60c controller using CTRE's PHOENIX software computer code was Defendant's first attempt to compete with the TALON SRX smart controller.

24.   Recently, *FIRST*® began to advertise the approved use of Defendant's DMC-60 and DMC-60C Motor Controller for its robotics competition events.

25.   Defendant and its DMC-60 and DMC-60C Motor Controller is a direct competitor to CTRE using identical channels of commerce as marketed to identical customers and specifically children involved in STEM and robotics competition events organized by *FIRST*®.

26.   Defendant had access to and did in fact access CTRE's PHOENIX software computer code through the PHOENIX library and or through CTRE's GitHub site.

27.   CTRE has obtained a commercially available new-in-the-box DMC 60c product from Defendant, including original packaging and available software designed to run such DMC 60c.

28.   Forensic examination of the DMC60c and related software provided by Defendant proves Defendant is infringing CTRE's copyright and is also in breach of the CTRE license agreement.
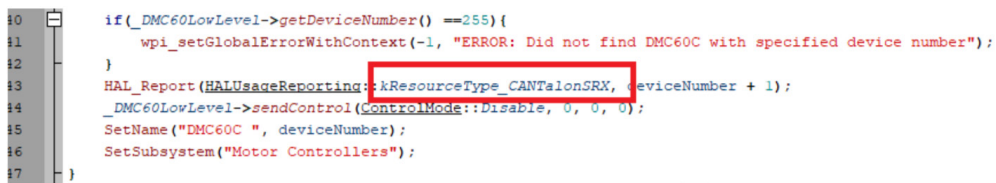
29.   Using forensic examination, CTRE catalogued many examples of Defendant's direct copying of CTRE's computer code.

30.   Defendant copied without authorization identical *features*, *functions*, *code*, *exact filetypes*, *code lines*, and many other aspects of the authentic copyrighted software code bundle owned by CTRE.

31.   Defendant copied, imitated and stole CTRE's code and made wholesale use of such code when developing, selling, and commercializing a directly competitive product.

32.   Defendant copied large blocks of *identical code*, large blocks of *identical values*, and large amounts of code having *identical file names*, and *identical file types*.

33.   Defendant's code screenshot below clearly identifies the DMC60 reference but also CTRE's "*CANTalonSRX*" branding. In other words, Defendant's code retained *CTRE's own branding* embedded within Defendant's own computer software programming for its competitive product, the DMC60c:

```
40  if(_DMC60LowLevel->getDeviceNumber() ==255){
41      wpi_setGlobalErrorWithContext(-1, "ERROR: Did not find DMC60C with specified device number");
42  }
43  HAL_Report(HALUsageReporting::kResourceType_CANTalonSRX, deviceNumber + 1);
44  _DMC60LowLevel->sendControl(ControlMode::Disable, 0, 0, 0);
45  SetName("DMC60C ", deviceNumber);
46  SetSubsystem("Motor Controllers");
47  }
```

34.   Defendant intentionally infringed and violated CTRE's federal copyrights and also breached CTRE's contract license limitations in order to sell infringing products to children involved in STEM education and robotics competitions.

35.   Defendant intentionally infringed CTRE's copyright to this software and Defendant had access to such software prior to doing so. There is no justifiable reason for Defendant to have originally developed and programmed into its computer code *CTRE's branding*, *use of identical blocks of code*, *identical values*, *identical file names*, and *identical file types*.

36.   Defendant's infringing conduct is intentional and willful. Rather than investing time and money into writing a computer software program that was independently created and original, Defendant's computer code programmers instead made wholesale copying, duplication, and derivation of CTRE's original code for commercial, competitive purposes.

37.   Defendant's conduct and its DMC60c product described in this complaint occurs in direct and proximate relation to children that participate in STEM Programs and robotic competitions.

COUNT ONE – INTENTIONAL COPYRIGHT INFRINGEMENT

38.   CTRE incorporates by reference all prior paragraphs as if set forth herein.

39.   CTRE is the owner of the original work embodied in computer code protected by Certificate Reg. No. TX 8-747-057, known as PHOENIX.

40.   Without authority, Defendant copied the computer code known as PHOENIX, as demonstrated by Plaintiff's forensic examination by a computer forensic examination expert, which together with a side-by-side comparison of the actual code, demonstrates actual evidence or copying. This side-by-side comparison demonstrates the existence of substantial amounts of *identical code*, large blocks of *identical values*, and large and substantial amounts of code having ***identical file names*** and *identical file types*. Such information constitutes direct evidence of copying, supported by expert forensic review or even a side-by-side review of the two code sets.

41.   Defendant had access to PHOENIX by virtue of a number of means, including but not limited to the Phoenix API Library/Repository.

42.   Defendant's computer code is, when compared to CTRE's computer code, so strikingly similar that it reasonably precludes the possibility of independent creation. The fact that Defendant's code references CTRE's own branding demonstrates the impossibility of independent creation.

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43.   Defendant's computer code is substantially similar to CTRE's computer code as viewed by an ordinary observer, a more discerning ordinary observer, or any observer who can view the identical nature of the code when viewing the code in a side-by-side comparison.

44.   Defendant's sales of its product and accompanying software constitutes a continuing infringement, and Defendant's software is stored on thousands of customer's and end user's computers. The extent of Defendant's sales and unauthorized release of CTRE's computer code is unknown, but on information and belief, it is substantial given the number of robots created by children using these products in the *FIRST*® robot competitions.

45.   Each of Defendant's customers have and continue to use unauthorized copies of CTRE's PHOENIX software.

46.   CTRE has suffered substantial actual damages as a result of Defendant's unauthorized and intentional infringement.

47.   Defendant has enjoyed substantial profits as a result of Defendant's unauthorized and intentional infringement.

48.   CTRE has suffered and continues to suffer irreparable harm by Defendant's continued unauthorized and intentional conduct, as the purchasers of Defendant's product continue to infringe CTRE's PHOENIX code.

COUNT TWO – BREACH OF LICENSE AGREEMENT

49.   CTRE incorporates by reference paragraphs 1-37 as if set forth herein.

50.   CTRE provided its end users with a *limited license* having clear and strict conditions under which its PHOENIX computer code could be used.

51.   CTRE provided actual notice to all persons downloading its PHOENIX code that expressly restricted use of the code limiting such use only when used in connection with CTRE's products and only in connection with *FIRST*® robotics competition events.

52.   Defendant received actual notice of these strict license terms and agreed to such terms when downloading CTRE's code from the PHOENIX API Library or CTRE's GitHub site.

53.   Defendant agreed to these license provisions by downloading CTRE's code.

54.   Defendant breached such license agreement by making and selling infringing products to children participating in STEM programs and robotics competitions, causing CTRE actual damages.

WHEREFORE, Plaintiff CTRE requests all available damages, injunctive, and other relief comprising:

a. actual damages incurred by CTRE including a reasonable royalty on all sales pursuant to 17 U.S.C. § 504;

b. together with all profits earned by Defendant resulting from the unauthorized use of CTRE's intellectual property;

c. prejudgment and post-judgment interest on the damages caused by the breach of contract;

d. a permanent injunction prohibiting the further use of any and all code unlawfully copied, stolen, used, and modified;

e. all damages caused by the breach of the license agreement in an amount to be determined at trial;

f. attorneys' fees and expenses; and,

g.   all other relief to which Plaintiff CTRE may be entitled.

Dated: August 14, 2019   /s/ *Jared Hoggan*

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